

## ABSTRACT

An apparatus for eliminating reflection of an input electric signal by providing an impedance matching region between an input region and mutual operation region is disclosed. The impedance may be adjusted by varying the width of a signal electrode and the interval between the signal electrode and ground electrodes.

The apparatus preferably eliminates any reflection of signals in Mach-Zehnder optical modulator that is generated when velocity matching is performed for the light propagated through the optical waveguide and the electric signal propagated through the signal electrode and an electrode interval is varied for lowering the drive voltage because an impedance of the mutual operation region becomes lower than the input impedance.